LANDING SYSTEMS TEST FACILITY

The Landing Systems Test Facility (LSTF) provides an electronic, visual landing aid, and air traffic control lab and flight test facilities with state-of-the-art, real-time automatic data recording, reduction, and processing capability.

LSTF PROVIDES INTEGRATED ATC, LS AND DT&E ENVIRONMENT

The Landing Systems Test Facility (LSTF) consists of a 13,000 sq. ft electronically shielded laboratory building, an 500 sq. ft. remote radar building, 1,100 ft diameter remote laser tracker concrete pad, a stabilization tilt table, and a Nimitiz-class aircraft carrier deck night lighting package. The LSTF consolidates Navy shipboard and shore air traffic control and landing systems (ANSPN-42,-46, and AN/TRN-28; and Carrier Air Traffic Control Center Direct Altitude and Identity Readout) and Marine Air Traffic Control and Landing System (MATCALS) which includes AN/TPN-22, -30, and AN/TPS-73 radars; and AN/TSQ-131V controls and displays. The Visual Landing Aids located at the facility include the Fresnel Lens Optical Landing System (FLOLS) and carrier deck runway lighting system. The test site provides both over water and over land approach test capability.

The Navy air traffic control and landing system operator consoles and computers, and data reduction and processing systems are housed in an electronically shielded laboratory building which provides a centralized test control station and integrated data processing center.

The data reduction system merges, time correlates, and provides real time automatic data recording and reduction of radar tracking and control data, independent aircraft time-space-position information, and instrumented aircraft telemetry data. The facility is linked to the Chesapeake Test Range tracking and telemetry data systems, the Manned Flight Simulator, engineering office spaces, and other key sites via a base wide communications network.

The LSFT supports flight and ground lab tests of new air traffic control and landing systems, as well as modifications and improvements to existing operational

systems. Changes to either the airborne or surface segment can be evaluated as an integral part of the total system. The performance of any new system can be readily compared against archived baseline data on existing systems.

For more information, please contact the Air Traffic Control and Landing Systems Division at the Naval Air Warfare Center, Patuxent River, MD, (301) 342-4441.